ABSTRACT OF THE DISCLOSURE

There is disclosed a method for fabricating semiconductor devices having a wiring construction consisting of a conductive layer (a copper layer) and an insulating layer (a porous insulator layer with low dielectric constant). A method for wiring forming of semiconductor devices of the present invention comprises at least: a first step for forming a first insulating material layer on a sample; a second step for forming on the first insulating material layer a second insulating material layer with a dielectric constant less than 2.5; a third step for patterning the second insulating material layer by a plasma etching method; a fourth step for depositing a metal film on the second insulating material layer by a sputtering method; a fifth step for forming a copper layer on the metal film; and a sixth step for removing an unnecessary portion of the copper layer by Chemical Mechanical Polishing, wherein all the processes from the third to the fourth step are performed under drying process conditions, and a pure water treatment for cleaning the sample with pure water is provided after the sixth step. The wiring forming method of the present invention can form a good semiconductor device wiring having high reliability.